

E-learning UP: Challenging the traditional academics for web-based Teaching & Learning

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Abstract

Last year at the EUNIS conference in Bled we have presented a pilot project of e-learning at our University which we have called: **“E-learningUP|2003: a pilot project for implementing *e-learning* at Universidade do Porto”** [1]. This project progressed gradually, starting from the perception phase of what e-learning is, followed by the development of contents, until the evaluation of the final results.

In this paper we will present the project E-learning UP in a different perspective as it proved to be now a systematic and coherent line of development of e-learning at the University of Porto.

We will thus show how the project evolved and was embraced with enthusiasm and motivation by our academic community.

Keywords: e-learning, higher education.

1 Introduction

The Universidade do Porto (UPorto) is mainly dedicated to teaching and learning (T&L) and research and development (R&D). Its infrastructures are geographically dispersed all over the city of Porto and its surroundings.

The University is divided into 16 organic units: 14 Faculties, the Management School of Porto – EGP and the Institute of Common Resources and Initiatives – IRICUP. Each of these units has its own administration. Besides the organic units, the UPorto includes 72 institutes and centres for R&D and several other organisations like the Social Services.

The top level administration of UPorto assumed as strategic the continuous improvement of the quality of education and has adopted the use of technology as one of the ways for achieving this goal.

The implementation of an organized and systematic approach to e-learning in an institution as large (about 26.500 students and approximately 2.000 professors, and 1.200 technical and administrative staff) and with an organic structure as UPorto (16 “autonomous” organic units) is not an easy assignment.

Changing from a set of relatively independent pilot e-learning initiatives to a coherent and systematic production that, at the same time, contributes to promote the sharing of experiences and resources among the professors of the different schools of the University was, and still is, a great challenge. This challenge was clearly assumed by IRICUP. It was established as a target for each year to increase the number of courses with an on-line component by 30. The pedagogical contents to be created should be delivered on one of the Learning Management Systems (LMS) supported by the University.

The execution of this project was assigned to an internal unit of IRICUP devoted to the promotion of the use of new technologies in education: GATIUP. This office offers technical and pedagogical support directly to the professors of the several organic units of UPorto and maintains also in operation the LMS of the University.

GATIUP has six graduate collaborators, with different backgrounds, as Biology, Chemistry, Multimedia Technology, Communication Science, and Education & Technology, but all with specializations on e-learning as well as continuous professional development on this area.

2 Implementation of the Project e-LearningUP: first edition, 2003/04

In the beginning of 2003, GATIUP launched the first edition of the project E-learning UP. The target previously mentioned was not entirely achieved, as only 21 courses adhered to the initiative.

Besides the production of on-line contents, in a b-learning perspective, as these contents were seen as complementary to the traditional teaching and learning process, the project also aimed to evaluate the value of e-learning for UPorto as well as the two LMS platforms in use.

Recalling the main stages of the project [1], it included encouragement and implementation, and later, dissemination and evaluation.

The first stage of the project was already detailed reported elsewhere [1]. It mainly consisted of enlightening sessions in every school to disseminate the facilities of the LMS and the possibilities they open for teaching and learning. The specific support the University was able to offer to the professors, in

order to help them in developing on-line pedagogical contents, was also clearly emphasised.

The first edition of the E-learning UP project tried to include courses very diverse in terms of subjects, complexity, number of students and academic course years, as well as professors with different computer skills. The objective was to identify different needs and pedagogical approaches and to be able to enrich this way the exchange of experiences among the professors involved.

Only 23 professors (representing 21 courses) from 7 different organic units joined.

During the implementation stage, professors had to develop and use an on-line component in their courses. To achieve this, each professor was individually guided through the semester or academic year by one of the members of the GATIUP team, both for the creation of a pedagogical strategy for the on-line component, as well as for the development of courseware. GATIUP also supported faculty in the creation of more complex multimedia Learning Objects.

To promote interaction among the professors, the whole group, including GATIUP, met periodically to exchange ideas, strategies and results. These meetings also intended to create a university community with common interests, towards new technologies in education.

The project included several training opportunities for the professors in areas such as webpage development, image edition, and LMS usage. This training was part of the annual continuous training plan of the University. Specific training was also provided locally, at each organic unit, both to professors and students, upon request.

Several items illustrate the project impact on the academic community:

- ✓ Seven schools were involved (Science, Law, Nutrition and Food Sciences, Medicine, Economy, Engineering, and Psychology and Educational Sciences);
- ✓ Twenty one courses developed on-line components for the first time (these courses are assembled in a blended perspective. They do not dispense the class attendance by students) – eleven courses were annual, five were 1st semester and five 2nd semester;
- ✓ Twenty three teachers were involved (three teachers drop out at the very beginning of the project);
- ✓ Two thousand students had accessed the new on-line components developed;
- ✓ Two thousand, one hundred and twenty nine electronic documents were produced;
- ✓ Two hundred and twenty four thousand hits in the LMS were registered.

3 Outputs of e-LearningUP: first edition, 2003/04

Concerning the outputs and strategies for dissemination of the project the 19 case studies produced were of particular importance. These case studies were presented at the

E-learning Workshop organized by UPorto late September 2004. This workshop was mainly dedicated to the UPorto academic community. The case studies presented were compiled in a written publication [6] and CD-ROM. This publication was distributed to the organic units of UPorto and its libraries, besides other national higher education institutions and libraries. The workshop was an excellent opportunity for professors to share their work with the university community, exchange experiences and identifying strengths and weakness of the methodology followed.

The project website (<http://elearning2003.up.pt>) presents all the relevant information related to the different phases of the project, as well as the corresponding case studies.

Dissemination of results was also achieved by a number of papers presented in national and international conferences [2] [3], [4], [5], [7], [8], [9], [10]. Demo courses were also presented at the UPorto Annual Fair.

Dissemination was crucial not only for the success of this particular project but also for the success of the overall initiative of implementing e-learning at UPorto. The workshop and the publication of the case studies were decisive for motivating new teachers to get involved in e-learning in the present year project.

4 Follow-Up: Project e-LearningUP second edition, 2004/05

The second edition of the E-learning UP project, presently in progress, has a very similar structure as the previous one. Although it is still running the results are already very positive.

This year, differences concerning participation of the academic community are huge. We roughly point out some figures as the 1st semester is still running and thus the results are not final.

- ✓ All the fourteen schools are involved this year;
- ✓ Seventy two professors are participating;
- ✓ Sixty five courses – thirty one annual courses, fifteen 1st semester and nineteen 2nd semester – will have on-line pedagogical contents for the first time;
- ✓ About 7500 students are already using the learning management systems.

Professors are being encouraged to prepare their case studies concerning the work being developed in the context of this year E-learning project. These case studies will be presented at the Uporto E-learning Workshop of this year, and will also be the subject of a publication. The project website will disseminate the results extensively, including these case studies.

Professors are also being encouraged to present their experiences in national and international conferences of the area. They may apply for grants to participate.

5 Complementary actions

To allow some financial support to the academic community involved each year with the E-learning UP project, IRICUP itself apply for grants and sponsorship. Both for last year as for this year projects the applications have been successful, allowing the acquisition of services and resources. Besides the upper cited support for presenting communications at conferences, examples of other activities sustained are the translation of contents, mainly from Portuguese into English, the production of CD-ROMs, videos or other multimedia resources, as well as the award of laptops, scanners, digital cameras or software needed for the development of the on-line contents. This support is given aiming to contribute to increase the quality of the courseware developed.

Besides supporting the professors that for the first time develop pedagogical on-line contents for their courses, GATIUP maintains a helpdesk service for all the professors of UPorto that use e-learning.

To increase motivation and also to distinguish the professors who get involved with e-learning, UPorto created an annual Award of Excellence for E-learning. Its bylaw was approved late last year by the University Senate and the award is going to be given this year for the first time.

Another initiative that deserves mentioning is the effort being made to incorporate e-learning in the “normal” pedagogic process at UPorto. E-learning should not be seen as a parallel activity in relation to traditional teaching and learning but becoming more and more “traditional” itself. Next year the pedagogic inquires that are made at the end at each semester or academic year, in each course, will incorporate a section about e-learning. Nowadays different inquires are released for evaluation of traditional teaching and learning and for e-learning.

Also, the integration between the e-learning platforms (LMS) and the University Information System, SIGARRA [12], is being developed. SIGARRA has several modules and facilities to support the pedagogical process [11]. The availability of a standard Web page for each course syllabus (see Figure 1), based on official information about its goals, contents, bibliography, assessment, etc., is one of them.



Figure 1: Standard Web page of a course.

The system presents also modules for the management and visualization of classes' summaries and documents, like slides, last years examinations, etc. To access some of these modules students, as well as professors, must authenticate into the system. Besides aiming single sign-on in relation with the LMS, other integration facilities between the two systems are under development, like the facility for students to access the pedagogical on-line contents associated with their courses from their personal pages in SIGARRA (Figure 2).

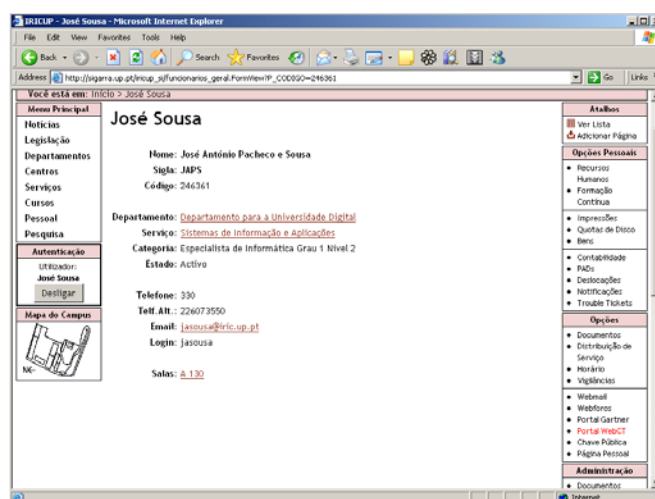


Figure 2: SIGARRA personal page and connection to WebCT portal.

To allow this integration and also to benefit from a wider range of services to support successful strategies for T&L, UPorto invested on a new license of WebCT – WebCT Vista. This platform provides a virtual course environment, built to support a diversity of teaching styles and learning needs, with an easy-to-use interface and a complete set of efficient tools, providing also a manager for distributing and reusing academic content.

Integration with SIGARRA is being developed for WebCT Vista and also for Luvit. Both systems are supported by UPorto, at present time.

6 Conclusions

At the University of Porto an increase interest in e-learning is observed. In our view this attitude is largely due to the following major factors, listed by decreasing order of importance:

The commitment of the top level administration with the continuous improvement of the quality of education and the use of new technologies as a way to achieve this goal;

The organized, systematic and integrated approach to e-learning being followed;

The acknowledgment of the work of professors who get involved with e-learning;

The technical and pedagogical support provided to all professors in a personalized mode;

The significant improvement of the technological infrastructures;

The pressure created by the students to dispose of on-line pedagogical contents;

The rising of a university community of interest;

The grants and awards being given to the professors.

To continue the work being done, described herein, UPorto is now more concerned and focused on the sharing of pedagogical contents and the related copyright issues.

References

- [1] Amaral, Margarida, Martins, Isabel, Ribeiro, Lúcia “**E-learningUP|2003: a pilot project for implementing e-learning at Universidade do Porto**”, *EUNIS 2004 Conference Proceedings*, Bled Ljubljana, Slovenia, (2004).
- [2] Amaral, Margarida, Martins, Isabel, Ribeiro, Lúcia, “**E-learningUP|2003-04: Um projecto piloto para a implementação do e-learning na Universidade do Porto**”, *e-LES – Elearning no Ensino Superior*, 27-29 Outubro 2004, Universidade de Aveiro, Aveiro, Portugal, (2004).
- [3] Amaral, Margarida, Martins, Isabel, Ribeiro, Lúcia, “**E-learningUP|2003-04: Um projecto piloto para a implementação do e-learning na Universidade do Porto**”, *Challenges 2005*, 10-13 Maio 2005, Universidade do Minho, Braga, Portugal, (2005).
- [4] Amaral, Margarida, Pinto, Maria, Ribeiro, Lúcia, “**E-learningUP|2003-2004: a pilot project for implementing e-learning at Universidade do Porto**”, *4th Annual WebCT European Users Conference – WebCT 2005*, February 2005, Barcelona, Spain, (2005).
- [5] Cruz, Orlanda, Jordão, Filomena, Lencastre, Leonor, “**Reflexões sobre o ensino e a aprendizagem a propósito das plataformas de e-learning**”, *e-LES – Elearning no Ensino Superior*, 27-29 Outubro 2004, Universidade de Aveiro, Aveiro, Portugal, (2004).
- [6] “**E-learningUP|2003-04: Um projecto piloto na Universidade do Porto**”, Universidade do Porto, ISBN 972-8025-27-0, Porto, Setembro, (2004).
- [7] Moreira, Pedro, Teixeira, Vitor, “**Experiência e-learning na disciplina de Alimentação e Nutrição Humana da Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto**”, *e-LES – Elearning no Ensino Superior*, 27-29 Outubro 2004, Universidade de Aveiro, Aveiro, Portugal, (2004).
- [8] Restivo, Maria Teresa, Chouzal, Maria de Fátima e de Almeida, Fernando Gomes, “**Uma experiência de E-Learning no domínio da Instrumentação para Medição**”, *3^o Congresso Luso-Moçambicano de Engenharia, CD-Rom Proceedings*, pp. 53-59, Maputo, Moçambique, Agosto de 2003.
- [9] Restivo, Maria Teresa, Chouzal, Maria de Fátima, Almeida, Fernando Gomes de, “**Uma estratégia na produção de conteúdos e-learning**”, *2004 GCETE - Global Congress on Engineering and Technology Education*, March 13 - 16, 2004, São Paulo, Brasil, (2004).
- [10] Restivo, Maria Teresa, Chouzal, Maria de Fátima, Almeida, Fernando Gomes de, Amaral, Margarida, Leitão, Susana, “**Cursos temáticos de e-learning no domínio da Instrumentação para medição**”, *e-LES – Elearning no Ensino Superior*, 27-29 Outubro 2004, Universidade de Aveiro, Aveiro, Portugal, (2004).
- [11] Ribeiro, Lúcia, David, Gabriel, *Impact of the Information System on the Pedagogical Process*, in Jan Knop, Peter Schirmbacher, *EUNIS 2001 The Changing Universities The Role of Technology*, pp.249-251, (2001).
- [12] Silva, Filipe, Cunha, António, Machado, Manuel, Ribeiro, Lúcia, David, Gabriel, “**Upgrading an Academic IS from a prototype to a Product**”, *EUNIS 2004 Proceedings*, Bled Ljubljana, Slovenia, (2004).